Datasheet for ABIN7505389

GDF11 Protein (AA 136-384) (His tag)

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Overview

Quantity:	100 µg
Target:	GDF11
Protein Characteristics:	AA 136-384
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GDF11 protein is labelled with His tag.

Product Details

Sequence:	Thr 136-Asn 384
Characteristics:	A DNA sequence encoding the Mouse GDF11 protein (Q9Z1W4) (Thr136~Asn384) was expressed with a N-His .
Purity:	> 95 % as determined by reducing SDS-PAGE.

Target Details

Target:	GDF11
Alternative Name:	GDF11 (GDF11 Products)
Background:	Abbreviation: GDF11,BMP-11 Target Synonym: Growth/differentiation factor 11,GDF-11,Bone morphogenetic protein 11,BMP-11 Background: Growth Differentiation Factor 11 (GDF-11), also known as BMP-11, is a member of

Target Details

	the TGF-beta superfamily and is highly related to GDF-8. GDF-11 encodes a 407 amino acid (aa) prepropeptide which contains a signal sequence for secretion and an RXXR proteolytic processing site to yield a 109 aa residue carboxy-terminal mature protein. Mature GDF-11 contains the canonical 7-cysteine motif common to other TGF-beta superfamily members, however, like the TGF-beta s, Activins and GDF-8, GDF-11 also contains one extra pair of cysteine residues. At the amino acid sequence level, mature human, mouse, rat and chicken GDF-11 are 99-100 % identical. As detected by in situ hybridization, GDF-11 is expressed in diverse regions of the mouse embryo: tailbud, somitic precursors, limbs, mandibular and branchial arches, dorsal neural tube, odontoblasts, nasal epithelium, and particular regions of the brain. Targeted deletion of GDF-11, in mice, results in a spectrum of abnormalities including palatal malformation, vertebral defects, elongated trunks with a reduced or absent tail, missing or malformed kidneys, and an increased number of neurons in the olfactory epithelium. GDF-11 signals through the Activin type II receptors and induces phosphorylation of Smad2 to mediate axial patterning. Systemic GDF-11 levels decline with age and administration of higher levels of GDF-11 can reverse age-related cardiac hypertrophy. In addition, systemic administration of recombinant GDF-11 protein restores genomic integrity and health of muscle stem cells, neurovasculature and enhances neurogenesis.
Molecular Weight:	Calculated MW: 27.28 kDa Observed MW: 35 kDa
UniProt:	Q9Z1W4

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization.
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Handling

Expiry Date:	12 months

